Gerhard Bosch

Low wage work in five European countries and the US

Abstract

This paper presents some of the key findings of studies on low wage work in the United States and five European countries, namely Denmark, Germany, France, the Netherlands and United Kingdom, initiated and funded by the Russell Sage Foundation. The research on the United States summarized 2003 in Low-Wage America: How Employers are Reshaping Opportunities in the Workplace (Applebaum, Bernhardt and Murnane 2003) illustrates how US firms were responding to economic globalization, deregulation and technological change and how such responses were affecting typically low- wage workers. This approach was extended by an international comparison which sought to determine whether the generally much stronger product and labour market regulations in Europe as well as the greater role played by the welfare state and collective bargaining influence business strategies and reduce the incidence of low wage work and enhance job quality for low wage workers. Section 1 of this paper presents the main findings on the level and trends of low wage work and the principal characteristics of the low wage workers in each country. Section 2 analyzes the various pay setting institutions which determine pay in the six economies. Section 3 reviews the effect of national institutions that affect the labour supply. Section 4 examines the question if there is a trade-off between employment and low pay. Section 5 draws some conclusions on the impact of institutions on the level and development of low wage work.

Introduction

This article presents some of the key findings of studies on low wage work in the United States and five European countries, namely Denmark, Germany, France, the Netherlands and United Kingdom, initiated and funded by the Russell Sage Foundation. The research on the United States summarized 2003 in Low-Wage America: How Employers are Reshaping Opportunities in the Workplace (Applebaum, Bernhardt and Murnane 2003) illustrates how US firms were responding to economic globalization, deregulation and technological change and how such responses were affecting typically low- wage workers. One conclusion that emerged from this work was the notion that employers have significant discretion about the way they organize the use of their workers. Most US firms responded to the economic pressures by cost-cutting efforts which resulted in deteriorating pay and working conditions. Some companies choose the “alternative high road” in organizing and rewarding the work by
improving the productivity of their workers through reorganizing innovative forms of work organization and investing in training and new technologies. Another conclusion was that the decision to adopt the high road was shaped by institutions. Because of the weak regulation of product and labour markets, however, US firms did not face great constraints on their business strategies to choose “low road” strategies.

This approach was extended by an international comparison which sought to determine whether the generally much stronger product and labour market regulations in Europe as well as the greater role played by the welfare state and collective bargaining influence business strategies and reduce the incidence of low wage work and enhance job quality for low wage workers\(^1\). The comparison of the national institutional structures in these countries was supplemented by case studies on specific jobs in five industries in all countries – call centers, food processing, retail outlets, hospitals, and hotels. These case studies were exploring the effects of variations in institutional structures on jobs which were typically low paid in the United States. They also help to understand how inclusive or exclusive the national institutional structures are. In exclusive systems, the pay and other terms and conditions of employees with strong bargaining power have little or no effect on employees with weaker bargaining power within a company, within an industry or across industries. Inclusive systems extend the benefits of such bargaining power to workers who have relatively little bargaining power in their own right. The more inclusive a set of institutions, the better protected are those at the low end of the workforce.

Section 1 of this article presents the main findings on the level and trends of low wage work and the principal characteristics of the low wage workers in each country. Section 2 analyzes the various pay setting institutions which determine pay in the six economies. Section 3 reviews the effect of national institutions that affect the labour supply. Section 4

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\(^1\) The comparative studies were presented in Bosch and Weinkopf (2008), Caroli and Gautié (2008), Lloyd, Mason and Mayhew (2008), Salverda, van Klaveren and van der Meer (2008), and Westergaard-Nielsen (2008). A comparative volume summarizes and extends on these five studies and the earlier US study (XXXXXXXXX). This article is based on this comparative volume which is based on the work of 26 researchers from six countries.
examines the question if there is a trade-off between employment and low pay. Section 5
draws some conclusions on the impact of institutions on the level and development of low
wage work.

1. Incidence of low pay

The low pay threshold below which wages are considered to be low has been defined as less
than two thirds of the national median of gross hourly wages. This approach avoids the the
difficulties of defining an absolute level of low pay that is genuinely comparable across all six
countries and offers the practical advantage of being endorsed by the OECD and the EU and
adopted in many datasets. The six countries differ greatly in the incidence of low pay (Table
1). According to our coordinated analysis of separate national household surveys the United
States has the highest share of low wage work with about 25%. Germany contrary to
widespread expectations because it was known for its low income differentiation in the past
was the country with the next highest share of low wage work (22.7%) followed closely by
the United Kingdom. France (11.1%) and Denmark (8.5%) had substantially smaller low-wage
shares and the Netherlands (17.6%) fell about midway between these two groups of countries.

Table 1: Rate of low pay among employees* and working-age population, %, 2003-2005

<table>
<thead>
<tr>
<th></th>
<th>Denmark</th>
<th>France</th>
<th>Germany</th>
<th>Netherlands</th>
<th>United Kingdom</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>% employees below</td>
<td>8.5</td>
<td>11.1</td>
<td>22.7**</td>
<td>17.6</td>
<td>21.7</td>
<td>25.0</td>
</tr>
<tr>
<td>low pay threshold,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>head count</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% population below</td>
<td>6.2</td>
<td>6.4</td>
<td>11.8</td>
<td>11.2</td>
<td>13.6</td>
<td>16.3</td>
</tr>
<tr>
<td>low pay threshold,</td>
<td></td>
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<tr>
<td>head count</td>
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</table>

*) Excluding apprentices in Denmark and Germany. **) 22.0% if East and West are treated separately
**) 22.0% if East and West are treated separately.

Source: Mason and Salverda 2009
The evolution of the share of low wage work was as different as the incidence. The US level was already high in the 1970’s and varies since then with the economic cycle. Over the same period the shares in Denmark were constant in Denmark and falling in France. The United Kingdom and the Netherlands saw large increases in the 80’s and 90’s, with no further increases in the 2000s. In Germany the low wage share was flat or falling before the unification but from the mid-1990s, the Germany low wage share increased steadily even in the recent economic upswing. In contrast to countries with a minimum wage or higher trade union density the wage dispersion extends a long way downward. In 2006 1.9 million workers around 6.5% of the German workforce earned less than 5 € an hour (Bosch and Kalina 2009). Also in the Netherlands with sub-minimum wages to workers up the age of 24 years the income distribution has a “long tail” down to very low hourly wages.

Beyond direct compensation for their work, workers can benefit from fringe benefits – such as paid vacations, paid public holidays, health insurance, sickness pays, pensions and other forms of compensation. In the United States many of these non-wage benefits are paid for privately and entirely at the discretion of employers, though US workers are eligible for Social Security pension benefits, for example, as a result of their payroll-tax contributions.

All European welfare states require firms to continue to pay their employees when they are sick. The cost of sick pay is often shared between firms and the state. In addition, in all European countries, employment is directly linked with mandatory health, old age, unemployment and accident insurance, for which both employees and employers pay contributions. In some EU countries, some welfare entitlements are financed by the state (mainly in Denmark) and in some cases, such as the National Health Service in the UK, entitlements are linked with citizenship (or residence) status, not employment. These employment rights are mandatory and cannot be denied to the low paid, which means that alongside the minimum hourly wage, there is also a minimum social wage, which is often sizable.
In the US, a considerable proportion of *average* labor costs (about 37% in 2000) are non-wage costs (EBRI.org 2006), with the non-wage costs substantially lower for low-wage workers, who generally have lower levels of non-wage benefits such as health care and paid time off. This US share is not far below the 43.3% non-wage costs in Germany or the about 45% rate for France. In the US, however, many social benefits (holiday and sick pay for instance) are not legally regulated, reducing the (legal) minimum social wage. The National Compensation Survey, for example, shows that low-paid and part-time workers are frequently excluded from non-wage benefits. Only 76% of employees in the US receive paid holidays and only 57% receive sick pay. Among employees earning less than $15 per hour, these percentages are even lower, at 67% and 46% respectively. The figures for part-timers are 37% and 22% (US Department of Labor 2006).

European Directives on a number of key dimensions of work conditions such as annual leave, sickness leave and equal pay and entitlements of part-time, temporary and agency work have ensured that the five European countries have a lot more in common with each other than they do with the US. Thus, for the low-paid, the differences in social wages between the US, on the one hand, and the 5 European countries, on the other, are significantly larger than the differences for private wages alone. If the low wage threshold used in Table 1 had been computed on the basis of social rather than private wages, the proportion of low wage workers would probably be even higher than 25% in the US, and the gap with the European countries would probably be wider (Mason and Salverda 2009). It is not surprising that the absence of welfare provisions for the low paid in the US contributes to a greater overlap between low pay and household poverty than is found in Europe (OECD 2006: Figures 2.9 and 2.10).

If, as in Europe, the government sets a minimum social wage, all firms are generally obligated to pay it --including firms' national competitors. By contrast, many US employers, operating in highly competitive and price sensitive markets, see little possibility of paying
non-wage benefits above the minimum wage since their competitors are not likely to follow suit.

The vulnerable groups in each country are similar. Multivariate analysis of Mason and Salverda (2009)\(^2\) indicates that the probability for a worker of being in low-paid employment is greater in all six countries for women compared to men, for youths up to 30 years compared to older workers, for the low skilled compared to the better skilled and for foreigners compared to nationals. There are, however, remarkable inter-country differences in the quantitative importance of these effects. For example adult women clearly suffer less to men in Denmark than elsewhere. At the same time the age effect is strongest in Denmark. It is only in Denmark that young people make up the majority of the low paid. However, the incidence of low-pay work in the 15-24 age group is highest in the Netherlands mainly because of the lower minimum wages for this group. Part-time employment, especially with 15 hours and less, increases the probability of being low-paid in the Netherlands, the UK, the US and Germany. Also the concentration of low pay work is higher for low-skilled in all countries some well-educated and skilled workers count for non-negligible proportions of the low paid in all six countries. More recent data detailed analysis based on national data on skill structure show that in Germany with its strong dual system of vocational training the share of skilled workers among the low paid even increased from 67% in 1995 to 74% in 2006 (Bosch and Kalina 2009). Obviously low wage work is not only unskilled work and the one dimensional hypothesis of skill-biased technological change cannot explain this high share and its growth over the last years.

From a social policy perspective, short periods in low-wage employment are less problematic than if low-wage jobs are concentrated among certain groups and those concerned have no prospect of moving up into more highly paid employment. Earnings mobility was researched in the national monographs using different national datasets. These

\(^2\) Based on the European Community Household Panel (ECHP) and the US Panel Study of Income Dynamics (PSID) for 2001.
analysis revealed relatively high mobility rates out of low pay in Denmark where many low paid are young, and in France, especially for those with middle or higher skills. In the US, UK, the Netherlands and Germany upward mobility is much lower with a risk of cycling between low pay and no pay. Mason and Salverda (2009) analysis of the ECHP and the PSID\(^3\) largely supported these results. They also show that that women and part-timers have lower chances of moving up and are facing higher risk of falling back to low pay. Also the probability of moving from low pay to non-employment is higher for women than for men.

In all six countries hotels and restaurants and personal services run a higher risk of low pay in all countries. In all countries hotels and restaurants have the highest incidence of low pay but the overall incidence is lower in Denmark and France than in the other four countries. A shift share analysis of Mason and Salverda (2009) shows that the generally lower incidence of low pay within industries in Denmark and France is the driver for the large differences in low pay between those countries and the US. The lower incidence of low pay in Germany, Netherlands and UK relative to the US strongly depends on the differences in sectoral structures (lower shares of employment in low-paying industries). The industry studies used national data which allowed more detailed disaggregation of industries and jobs. They show how strong the share of low wage work across countries varies with the same industry and activity (Applebaum 2009). For example 38% of nursing assistant in hospitals in the US are low paid compared with 21% in UK, just 9% in Germany, and between 0 and 5% in the Netherlands, France and Denmark. In all countries room attendants are at the bottom of the pay scale. But in Denmark and France where the wage floor is close to the low-wage threshold the share of low-wage work for all workers in hotels is 20 to 25% in Denmark and France, but rises to between 45 and 75% in the other four countries. In Denmark only 4% of the workers in the meat industry earn low wages. The average wage in this industry is about 30 € compared to 6 to 12 € in the other countries (Grunert, James and Moss 2009).

\(^3\) See footnote 2.
2. Industrial relations and wage setting

It has been shown that countries which rely on “institutions”, like collective bargaining or minimum wages, tend to have lower rates of wage inequality (Freeman, 2007). It is usually a set of institutions which is important, rather than a single one. Linkages between institutions differ from country to country. Different sets of institutions can have similar impact on wages and other terms and conditions of employment. The single most important institution appears to be coverage by collective agreements.

The well known, close relationship between the incidence of low pay and coverage by collective agreements (OECD 1997: Chapter 3) can be observed in the six countries covered in this study (see Table 2). Not only do the three countries with the lowest incidences of low pay (Denmark, France and the Netherlands) have greater coverage than the countries (USA, UK and Germany) with higher incidence, coverage in the former group has increased or remained stable since 1980, whilst it has decreased in the latter (OECD 1997: 71, Freeman 2007: 27). Historically, the UK and Germany had high levels of coverage (in the UK until the early 1980s and in Germany until the mid 1990s) which, after substantial transformations of institutions and of employer and state strategies, subsequently declined. Germany, with its still relatively high coverage, seems to be nearer France and the Netherlands than to the UK and the US. But the decline took place mainly in labour intensive industries - such as the ones which have studied in the low wage project of the Russell Sage Foundation.
The extent of collective bargaining coverage depends on different institutional settings in different countries. One can distinguish four types of institutional linkages (Bosch, Mayhew and Gautié 2009):

1. **Low inclusiveness because of low trade union density.** In the two liberal market economies (the US and the UK) coverage is mainly influenced by trade union density. Employers associations at the industry and higher levels are weak and are mainly lobbying organizations rather than actors in the collective bargaining process. Although in these two countries unions fail to extend the benefits of collective bargaining to non-union workers, unions do succeed in improving the wages and work conditions of their members (Schmitt et al 2007).

2. **High inclusiveness because of high trade union density.** As in the US and UK, in Denmark union coverage is mainly determined by trade union density, but density is high across the whole economy. More than 70% of the workforce is a union member and density has remained fairly stable over recent decades. Due to strong union power,
most firms who are not party to an agreement also pay the negotiated rates. As a result, union coverage is even higher than density. High union density can partly be explained by the so-called Ghent-system in which the unions run unemployment insurance funds, financed mainly by the state. This creates strong incentives to join a union.

(3) *High inclusiveness because of extended collective agreements and strong employer organisations.* In France and the Netherlands trade union density has been falling but without the same negative impact on coverage as in the UK and USA. In fact, union coverage has actually increased even as density has fallen, due primarily to increased employer organization and strong support by the state. In France, as in the Netherlands, non-discriminatory agreements are legally required, so that negotiated agreements are extended to both unionized and non-union-workers in any given company. In addition, the state declares most agreements to be generally binding throughout the relevant sector.\(^4\)

(4) *Low inclusiveness in spite of high employer density and high coverage.* As in France and the Netherlands, high employer density is the major institution for achieving medium to high coverage in Germany. However, in contrast to France and the Netherlands, employer density is shrinking. Collective agreements on minimum pay levels are declared generally binding in only a few industries, so that decreasing employer density has directly reduced union coverage.

Only in Denmark, the country with the lowest share of low wage workers, unions pursued a solidaristic wage policy as in other Scandinavian countries. The Danes have successfully reduced wage differentials between industries and between different groups of workers (by gender, skill and region) within industries, which was possible only because of the strength of

\(^4\) Furthermore, in France, in spite of very low density, unions used to have considerable bargaining power since they are, at least in the public services, able to mobilize workers for industrial action.
the umbrella union organization\textsuperscript{5}. Such strong intervention in the overall earnings distribution is not a feature in the other countries with multi-employer negotiations. In France, the Netherlands and Germany, pay differentials between industries have remained high. Unions in the typical labour intensive low wage industries have been too weak to negotiate wages much above a low floor. Therefore, in these countries collective bargaining has to be supplemented by statutory national minimum wages (NMW) to avoid high incidence of low pay while in UK and the US NMW are the only institution setting a minimum wage floor.

The minimum wage takes different forms in the six countries studied. In France and the Netherlands, for example, collective agreements fix minimum wage levels at the industry level, which are then usually extended by the government to uncovered workers in throughout the industry. These agreements not only set a minimum pay floor but also establish a complete pay scale with different rates for different types of jobs and employee characteristics (mainly skills and seniority), and in many cases, additional industry specific premiums and bonuses, as well as some fringe benefits. In Germany, in a small number of industries such as construction, cleaning and postal services, the government declares the minimum wage set in the industry collective agreement as binding within the industry but generally does not extend other terms of the agreement\textsuperscript{6}. In Denmark, in 2005, the social partners agreed to introduce an exceptionally high minimum wage of €12 per hour (13.80 € if vacation pay is included) for all industries\textsuperscript{7}, which is enforced by unions and employers. Finally, the United Kingdom, the United States, France, and the Netherlands have legislated NMW\textsuperscript{8}.

The coverage does not differ much across the four countries in this study with a NMW, as almost all industries and firms are covered. But there are also some special rates for young

\textsuperscript{5} As a consequence, unions in the highly productive industries, such as manufacturing, have not press for wage increases fully corresponding to the growth of their productivity. Instead, the gains from productivity growth were relatively equally distributed across the economy. Therefore, in Denmark, workers receive decent pay in industries that are typically low wage in most other countries.

\textsuperscript{6} These agreements may provide different rates for different groups of workers, for example, in construction, for unskilled and skilled workers.

\textsuperscript{7} Overall, collective bargaining in Denmark is a powerful instrument for preventative intervention in the national earnings distribution, which eases the redistributive burden imposed on the welfare state. This preventative intervention also supports the citizen status of low wage earners. They are tax payers, whilst all workers and not just the low wage ones are recipients of universal welfare transfers like child allowances.

\textsuperscript{8} In France in 2005, in more than 50% of the industry collective agreements, the minimum pay rate was below the NMW, and therefore not implemented.
workers that constitute legal “exit options”. In the Netherlands, these youth rates are very low and, in that sense, the NMW in that country is less “inclusive” than it is in France, the UK and the US.

In the mid 2000s, the level of the NMW differed between France, the Netherlands, the UK and the US. In 2006, the gross wage of a full time minimum wage earner was just under half of that of the average wage of a full time worker in France and the Netherlands (47% and 46% respectively\(^9\)), and only about one third in the UK and the US (35% and 34% respectively) (Allen and Regnard 2007). These contrasts are the consequence of very different policies during the past 15 years or more. The NMW was frozen in the USA between 1996 and 2007 and increased very moderately in the Netherlands during the same period. As a consequence, the value of the NMW decreased in the two countries both in real and relative terms. By contrast, the increase in the NMW has been substantial in France and the UK (since its introduction in 1999). In France, the NMW (the so-called “SMIC”) is legally indexed to consumer prices and (partially) to the growth of the hourly wages of blue-collar workers. Thus, even without any specific government intervention, the purchasing power of minimum wage earners is preserved and even increases through time. Because the NMW “bites” harder in France it is not surprising that the share of employees receiving the minimum wage is highest in France (16.8% compared to 2.2% in the Netherlands, 1.8% in UK and 1.3% in the US (Allen and Regnard 2007)\(^10\). NMW policies may have a direct impact on the global incidence of low wage work by reducing wage inequality, at least at the bottom of the wage distribution. There is indeed strong evidence that the introduction of a NMW (as in the UK) or the increases in its relative level (as in both the UK and France) reduce wage dispersion below

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\(^9\) In the Netherlands, 46% refers to employees who were 23 years old or more, working full time.

\(^10\) The figure for France is not directly comparable with the figures for other countries. It covers all those workers whose basic wage (i.e. without taking into account any bonus or premia, such as those for seniority) is the SMIC. But the total hourly compensation of many “SMIC” earners is much higher than the hourly SMIC: in 2002, for instance, 26% of SMIC earners had an effective total hourly compensation 30% higher than the SMIC – see Gautié (2008).
the median and below the low wage threshold\textsuperscript{11}. Yet, since the NMW is still well below the low wage threshold in the UK, the impact on the incidence of low wage work so far has been quite limited. The story is very different for France, where the low wage threshold was only about 5\% higher than the SMIC in the early 2000s, and where the share of low wage work has been declining in the past ten years. In the United States, the real and relative decline of the minimum wage may have been a key factor in the increase of inequalities in the bottom half of the wage distribution in the US in the 1980s and 1990s (Di Nardo, Fortin and Lemieux, 1997; Manning 2003: chap.12). Meanwhile, the absence of a NMW in Germany and the high differentiation of the NMW by age in the Netherlands explain the long tail in the income distribution down to very low rates of pay which are effectively cut-off by the minimum wages in UK and France.

The incidence of low pay may also depend on employer "exit options" - \textit{de jure} or \textit{de facto} exemptions, exceptions, or loopholes in otherwise inclusive pay-setting institutions. These "exit options" take many forms including: the ability of employers to withdraw from national collective bargaining agreements (as many small and medium enterprises have chosen to do in Germany); youth sub-minimum wages (in the Netherlands, the United Kingdom, and in the retail sector in Denmark); non-standard work arrangements, such as temporary contracts, temporary agency employment, part-time work, and German "mini-jobs"; and outsourcing, including the use of "posted" employees who work under the labor laws of their countries of origin rather than the countries where they are actually employed. In some cases, exit options are legal and formal; in others, the lack of enforcement of existing laws constitutes its own form of "exit option" (see, for example, the widespread violation of legal and collectively bargained labor standards in the hotel sector, likely related to the extensive use of immigrants in the sector) (Vanselow, Warhurst, Bernhardt, Dresser 2009).

\textsuperscript{11} In the UK, the NMW has cut the gap between the 50th and the 10th percentile of the wage distribution by 5 percentage points (Metcalf 2007). In the English care home workers sector the introduction of the NMW caused significant compression at the lower end of the wage distribution (Machin, Manning and Rahman 2003).
The increase in the use of various "exit options" in Germany -- the decline in employer participation in collective labor agreements, the rise in outsourcing, and the dramatic expansion in temporary agency work, "mini-jobs" and posted workers - has been the principal factor behind the rise in low-wage work there since the mid-1990s (Bosch and Kalina 2008).

3. Shaping of the labour supply

To pay low wages to a portion of workers employers must have access to a pool of workers who are willing to work for such wages. The institutions in the six countries are playing a large role in shaping the composition and the level of low wage work. The comparative analysis of Gautié et. al (2009) shows women are least overrepresented among the low -wage workers in the US, Denmark and France were they tend to work “standard” working hours (Figure 1) and are not “trapped” in mostly low paid marginal part-time work. In Denmark and France the strong attachment of women to the labour market is facilitatd by the the high public expenditure on child care which is above OECD average (Immervoll and Barber 2005). The public subsidies also help to set relatively high standards of child care which has a positive impact on the upward earnings mobility of the next generation. In the United States the low wage families have a strong incentive to choose cheaper and usually lower quality day care with a negative impact on the intergenerational earnings mobility. It also seems that the need for low paid women in the United States to work long hours is higher than in Europe since many services which are provided publicly in Europe have to be paid privately and because there is a greater overlap between low pay and poverty than in found in Europe (see section 2). In the three other countries the male-breadwinner model is still dominant in the institutional setting. All three countries invest less than France and Denmark in public child care. In Germany the tax and social security system sets the strongest incentive to work short hours since the additional income of a minijobs is not taxed and married partners are not loosing their derived entitlements for health-care.
The high incidence of young workers partly depends on lower wages for young which may reflect their limited work experience and the combination of working and learning for example in apprenticeship systems\(^{12}\). If learning and work is combined in UK a lower minimum wage, a so-called development rate, can be paid. Also the conditions and generosity of student grants play an important role in shaping the labor market supply of students. Because of insufficient levels of grants many students combine work and study in UK, Germany and the Netherlands. In Denmark where the youth and particularly students have the biggest share in low wage work, because school-leavers with poor grades can get access to higher education with some work experience.

The supply of low wage workers also depends on the pressures put on the unemployment to accept low wage work as well as the help for unemployed to improve their skills and their individual bargaining power on the labour market. Here we find two distinct models one which helps to avoid and the other to accept low wage work. In Denmark net replacement rate for unemployed are much higher and paid longer than in the other countries. The more generous unemployment benefit systems are supplemented by higher expenditures in active

\(^{12}\) In table 1 apprentices are excluded for Germany and Denmark, the two countries with strong apprenticeship systems. In Germany about 6\% of the workforce are apprentices of which nearly all would be counted as low paid.
labour market policy measures per unemployed. Especially training plays an important role not only in active labour market policy but also in general education policies in Denmark which provide generous grants for further training for adults. This has fostered the development of a training culture, which explains why participation rates in further VET are by far the highest in the OECD, not only for the younger and more highly skilled populations but also, and particularly, for less highly-skilled groups (OECD 2008 a: Indicator C5). This approach could be labelled as “empowerment strategy” in that aims to provide workers with human capital to foster their “individual bargaining power” (Gautié et. al 2009). In the other “work-first”-model unemployment benefits are low and only paid shortly. Job search assistance and monitoring place pressure on the unemployed to return to work as quick as possible and accept low-wage work (with in-work benefits in the United States and UK and increasingly also in Germany). France and the Netherlands are somewhere in between these two models. With the Hartz-laws Germany has moved 2004 further towards the work-first-model.

### Table 3: Unemployment Benefits (UB) and income consequences of becoming unemployed, active Labour market policy (2005)

<table>
<thead>
<tr>
<th>Country</th>
<th>Maximum duration of UB (in months)</th>
<th>Net Replacement rate in % of previous wage including other social benefits (single, without children, earning 60% of average wage) (1)</th>
<th>Total expenditure in active labor market policy/unemployment rate (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denmark</td>
<td>48</td>
<td>90,2</td>
<td>0,36</td>
</tr>
<tr>
<td>France</td>
<td>23</td>
<td>76,1</td>
<td>0,09</td>
</tr>
<tr>
<td>Germany</td>
<td>12</td>
<td>59,7</td>
<td>0,10</td>
</tr>
<tr>
<td>Netherlands</td>
<td>24</td>
<td>80,1</td>
<td>0,28</td>
</tr>
<tr>
<td>UK</td>
<td>6</td>
<td>64,3</td>
<td>0,10</td>
</tr>
<tr>
<td>US</td>
<td>6</td>
<td>62,0</td>
<td>0,03</td>
</tr>
</tbody>
</table>

Source: (1) OECD Tax benefit calculator: [net total income while unemployed (gross UB + housing and family benefits – income tax – social contributions) / net total income while employed (gross earnings + in-work benefits + housing and family benefits – income tax – social contributions)]

(2) Employment Outlook 2007 calculated by Gautié et. al 2009

13 Persons with lower secondary education (25 to 64 years) can expect 719 hours of training in Denmark, 130 hours in Germany, 450 hours in France, 216 hours in the Netherlands, and 102 hours in UK. Because of the low number of observations no data for the US is available (OECD 2008a: Table c5.1a)
Obvioulsy there are limits to a pure supply-side empowerment strategy. There is no evidence of a correlation between the size of the less skilled labour force and the share of low wage work (ibid.). If we take formal schooling and the proportion of the population holding upper secondary as an indicator we find that Denmark as well as Germany and the US are highly-placed in these terms. Literay scores may be a better measure of real competencies. All persons in the bottom quintile of literacy scores of all respondents to the International Adult Literacy Survey (IALS) could be defined as low skilled. Using the data from the IALS for the mid 1990s Mülhau and Horgan (2001) estimated that some 29% of the UK and 23% of the US working-age population were low-skilled compared to only 15% in Germany and 13% in the Netherlands. Although the probability to hold a low-paid job is much higher for the low skilled high shares of skilled workers are working for a low wage (see section 2). It seems that high skill levels are a necessary precondition for an empowerment strategy as in Denmark but not a sufficient condition to avoid low wage labour.

4. No simple Wage—Employment trade-off
It has been often argued that in face of skill-biased demand shifts there is an inescapable trade-off between employment and wages for low-skilled workers. Less inequality in Europe would therefore be linked with lower employment, and higher inequality in the US with higher employment. From the small sample of countries analyzed here one cannot draw definite conclusions about possible trade-offs in other countries. Given this limitation, however, the data on levels and development of employment rates does not support this theory (Applebaum et. al 2009). Contrary to conventional wisdom in Denmark and the Netherlands, countries with strong welfare states and high levels of collective bargaining, employment rates are higher than in the liberal economies of US and in UK, where wage inequality is much higher (Table 4).
One would expect that high minimum wages would price at least the low skilled out of the market. The employment rate of persons (25-64 years) with less than upper secondary education are, however, highest in Denmark (63%) and the Netherlands and in France at the same level as in the US (58%). UK has the highest employment rate of the low skilled (66%) in spite of the introduction of a minimum wage while the decrease of wages below the level of the British minimum wage did not improve employment prospects of the low skilled in Germany who have the lowest employment rate of the six countries with 54% (OECD b: Table D). This confirms the results of a recent analysis of the OECD which found that income inequality is negatively correlated with labour force participation and employment rates (OECD 2006: 165).

Table 4: Employment rates of men and women in working age (15-64 years) 1994 and 2006 (%)

<table>
<thead>
<tr>
<th></th>
<th>Females</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Denmark</td>
<td>67</td>
<td>73</td>
<td>6</td>
<td>78</td>
<td>81</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>France</td>
<td>51</td>
<td>60</td>
<td>9</td>
<td>66</td>
<td>69</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td>55</td>
<td>63</td>
<td>8</td>
<td>74</td>
<td>75</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Netherlands</td>
<td>53</td>
<td>68</td>
<td>15</td>
<td>75</td>
<td>80</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>United Kingdom</td>
<td>62</td>
<td>66</td>
<td>4</td>
<td>75</td>
<td>78</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>United States</td>
<td>65</td>
<td>66</td>
<td>2</td>
<td>79</td>
<td>78</td>
<td>-1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: OECD 2008b: Table C

These findings based on univariate analysis alone hint that institutional settings in some European countries help escaping the trade-off between employment and pay. They also do not preclude that in other settings (for example in France) such a trade-off exists. It seems plausible that employment rate outcomes depend heavily on the mix of particular institutions and policies.

Policies related to work-sharing and the structure of welfare expenditures seem to be especially important to explain some of the differences in employment rates. The average working times in Europe are considerably shorter than in the USA. Calculated on US working
hours European employment rates would drop substantially especially in the Netherlands and Germany with their high share of women working short part-time hours and in France with the 35 hour week. The US with its high wage differentiation is obviously able to create a higher volume of paid working hours per person in working age than the other countries (Table 5). The theory of the wage-employment trade-off could explain this. It does, however, not explain why the differences in the volume of work per person between the US and Europe do not translate into higher unemployment. In the Netherlands and Denmark the unemployment rate have been at the same level or lower in recent years as in the US. One answer to this puzzle may lie in the notion of the backward-bending labour supply curve. In traditional economic theory, the labour supply declines as wages fall, since it is no longer worthwhile working, and increases again as wages rise. This theory assumes the existence of an individual who can decide whether and how much he or she should work. As is well known, this is not what happens in actuality. In fact, when wages fall below a level that can provide a standard of living regarded as appropriate, households may increase their labour supply and do not reduce it again until it reaches a lower level that makes begging or criminal activity more worthwhile. When wages are increasing very rapidly, the labour supply initially rises, since workers are keen to take advantage of the opportunity to improve their income considerably. However, when wages are rising quickly, free time also becomes relatively more important. In such circumstances, households can afford to reduce their labour supply again in order to have more free time. As a result, the supply and demand curves intersect at two different points, with very different equilibrium wages (Prasch 2000). Strong institutions taking wages especially at the lower end and working hours out of competition seem to be the precondition for moving towards the equilibrium with shorter working hours and higher wages. They restrict the labour supply and prevent wages from falling. Denmark and the three Continental European with short collectively agreed or statutory (France) working hours are closer to the upper intersection point with higher hourly wages and a lower volume of work,
while the US and Great Britain are closer to the lower intersection point with longer working hours and low wages especially at the lower end. Shorter workers hours correspond to the working time preferences of the Europeans who mostly would prefer to work a few hours shorter per week (Bielenski, Bosch and Wagner 2002)

Table 5: Annual working time, and employment rates 2007

<table>
<thead>
<tr>
<th>Country</th>
<th>Annual working time (1)</th>
<th>Employment rate (15-64 years) in % (2)</th>
<th>Employment rate in US equivalents (3)</th>
<th>Difference column 2 minus column 3 (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denmark</td>
<td>1594</td>
<td>77,3</td>
<td>68,5</td>
<td>- 8,8</td>
</tr>
<tr>
<td>France</td>
<td>1457</td>
<td>64,4</td>
<td>52,2</td>
<td>- 12,2</td>
</tr>
<tr>
<td>Germany</td>
<td>1353</td>
<td>68,9</td>
<td>51,8</td>
<td>- 17,1</td>
</tr>
<tr>
<td>Netherlands</td>
<td>1336</td>
<td>74,1</td>
<td>55,1</td>
<td>- 19,0</td>
</tr>
<tr>
<td>UK</td>
<td>1655</td>
<td>72,3</td>
<td>66,5</td>
<td>- 5,8</td>
</tr>
<tr>
<td>USA</td>
<td>1798</td>
<td>71,8</td>
<td>71,8</td>
<td>0</td>
</tr>
</tbody>
</table>

*2006
Source: OECD (2008 a oder b) Table B and F, own calculations

The structure of the welfare regimes (Esping-Andersen 1990) state may help to combat the so-called ‘cost disease’ (Baumol 1967) of services might have two negative effects on employment. Firstly the costs of a lower wages differentiation are increasing prices for labour intensive services which might hinder the service sector to grow. Secondly high prices for services will induce especially women with low income expectations to choose household work over market work and create disincentives for work. The continental conservative welfare states tend to provide strong incentives for women to stay at home once they married, and focused their strong welfare guarantees on the male breadwinner while the Scandinavian welfare state concentrates its expenditures on public subsidies for social services like child care, education and elderly care which counteract the disincentive effects of a low wage differentiation and a large tax wedge especially for women. In the liberal model of the USA and UK the high wage differentiation helps creating service jobs. A large share of the differences in the employment rates of women can be explained by different welfare regimes (Bosch and Wagner 2005: 87).
Finally a trade off between wages and employment could be avoided by increasing the productivity of workers by improvements in work organization, and investments in skills and technology. In some of the five industries under research some support for such high road strategies in countries with lower shares of low wage work were found. Front-line jobs in meat processing are more capital-intensive in Denmark and France where higher wages than in the four other countries were paid in this industry (Grunert et. al 2009). In German retail trade most sales persons are skilled and take over jobs which usually are done by supervisors in others countries (Carré et al 2009). Another example are hospitals. Low skilled and poorly paid jobs of “nursing assistants” in the US are transformed into better paid jobs in all European countries (Méhaut et al 2009). In Denmark, France and Germany the jobs of call center agents are less fragmented and broader than in the other three countries although this does not always translate into higher pay in Germany.

At the other extreme, in spite of high differences in wages work organization and job content was quite similar for hotel cleaners across all six countries without (Vanselow, Warhurst, Bernhardt, Dresser, et.al 2009). There seems to be a “range of indeterminacy” (Lester 1964) in which wages can be set without negative employment impacts. In the literature on the employment effects of minimum wages here is support for this hypothesis. Reviews of the empirical research have come to the conclusion that the effect of differences in minimum wages on the employment of adults has been in general negligible (OECD 1998: 47; Metcalf 2007; Machin, Manning and Rahman 2003 ). One explanation for this could be the lack of bargaining power of the low paid in monopsonistic labour markets. Manning (2003) argues that “one should not get hung up on the prefix ’mono’: no employer exists in isolation … and one should think of a model of oligopsony or ‘monopsonistic competition’” (p. 360). He goes on “There are many frictions in the labour market which give employers the power to set wages like mobility costs or lacks of transparency about labour market opportunities. If the market power of employers is strong then this explains the amazing wage
differentials between workers doing equal work like the wage gaps between men and women, small and bigger firms, good or bad employers”.

5. Conclusions

In the late 80s and early 90s most economist assumed that in the face of skill-biased demands shifts there was an inescapable trade-off between employment and wages for low skilled. It was widely accepted that this sometimes called a Unified Theory explains low employment rates and low inequality in Europe and high inequality and high employment rates in the US. The US was regarded as the model and it was recommended that European governments should deregulate labour markets to solve their unemployment problem. Recent research has shown that there is more than one institutional means of encouraging high employment rates (OECD 2006). In the three European countries with low shares of low paid (Denmark, France, Netherlands) we found inclusive pay systems covering also employees with weak bargaining power.

An important instrument to offset the trade-off seems to be an empowerment strategy based on an active labour market policy and lifelong investment in education and training to foster the individual bargaining strategy of the unemployed. If these investments in human capital reduce the supply of low skilled work as fast as the demand is falling there is no need for more wage inequality. Our research indicates that in some European industries the “beneficial constraints” (Streeck 1997) on business strategies by more labour and product market regulation were pushing companies towards high road strategies based on innovations in work organization and increased capital intensity. This has, however, not happened in other industries. In some cases such industries might have lost employment, in others in did not affect employment because of monopsonistic labour market situations.

14 The idea that monopsony power of employers maybe widespread in advanced economies is also put forward by Erickson and Mitchell (2007). They see “monopsony as a metaphor for the emerging post-union labour market”. They argue employee voice needs to be restored to counter the undesirable consequences associated with strong macroeconomic performance, such as wage inequality and reduced worker rights.
It was also shown that employment rates especially of women depend substantially on the structure of the welfare regimes. In the continental European conservative welfare states the high social expenditures primarily still subsidize household work of women, which keeps women’s employment rates down, while in the Scandinavian model social services are financed. Publicly provided cheap social services do not only encourage women to work, they also provide equal access to high quality child care, education, and health services to the lower paid. This careful treatment of human capital through social services positively interlaces with the empowerment strategies in the labour market. The higher social wage in Europe might have a negative impact on the demand which, however, is offset by the high investments in public service jobs.

Finally it was found that employment rates calculated in US working hours are lower in all European countries than in the US. This does, however, do not translate into higher unemployment because of higher European preferences for shorter working hours. Institutions like collective agreements and working time laws might have helped to develop and articulate these preferences.

It seems safe to note, that it is not possible to explain labour market outcomes only by one institution. Employment outcome is the product of a set institutions both on the supply and the demand side of the labour market. When complementarity and virtuous circles of institutions are present employment rates are higher. Even in countries with low shares of the low-paid there remains the problem to be solved how to avoid long-term negative impacts of low pay on work careers and on the next generation. A good solution is to concentrate low pay on short periods in the life youth, like in Denmark. Since upward earning mobility is highest for young workers Denmark achieves more than other countries equity by passing “low wage jobs around, so to speak, like boring committee assignements or military service, but that would not have aggregate effect” (Solow 2008: 2).
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